

*Amendments to the Claims*

This listing of claims will replace all prior versions, and listings of claims in the application.

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1 - 34 (cancelled)

E2

35. (currently amended) An isolated DNA molecule comprising a DNA sequence encoding 400 contiguous amino acids or less of a Jak 3 peptide of SEQ ID NO:16, wherein said peptide contains ~~the sequence of SEQ ID NO:15 which includes the~~ Jak3 autophosphorylation site, wherein said Jak3 autophosphorylation site includes the amino acid sequence KDYY.

36. (previously presented) The isolated molecule of claim 35 wherein said molecule encodes a polypeptide having at least one conservative amino acid substitution.

37 - 41 (cancelled)

42. (currently amended) An isolated DNA molecule, wherein said DNA molecule hybridizes to a DNA sequence encoding amino acids of a Jak3 peptide of SEQ ID NO: 16, wherein said peptide contains ~~the sequence of SEQ ID NO:15, which includes the~~ Jak3 autophosphorylation site, wherein said Jak3 autophosphorylation site includes the amino acid sequence KDYY, and wherein said hybridization is done at 65° C in 750 mM NaCl and a final washing is done at 65° C in 15 mM NaCl.

43 - 44 (cancelled)

45. (previously presented) An expression vector, comprising the isolated DNA molecule of claim 35 wherein said vector expresses said Jak3 peptide in a host cell.

46. (previously presented) An isolated host cell comprising the expression vector of claim 45.

E2  
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47. (previously presented) The isolated DNA molecule of claim 35, wherein said molecule encodes a Jak3 polypeptide that is at least 80-99% homologous to the corresponding 400 amino acid sequence of SEQ ID NO: 16, wherein the percent homology is determined by comparing sequence information using a GAP computer program having the default parameters of (1) a unary comparison matrix (containing a value of 1 for identities and 0 for non-identities), (2) a penalty of 3.0 for each gap and an additional 0.10 penalty for each symbol in each gap, and (3) no penalty for end gaps.

48 - 51 (cancelled)

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